SA1, SA2, SA2PF
Wirefree Alarm System

Installation & Operating Manual

FOREWORD

All devices in these wirefree alarm systems are designed and manufactured to provide a high standard of security protection and long, reliable service.

These systems are designed for ease of installation using only basic DIY tools. However, it is essential that the installer reads and fully understands the advice and procedures contained in this manual and plans the system before proceeding with the installation.

No radio operating licence is required for this equipment.

During installation, it is important that the procedures described in this manual are followed in sequence.

Note: This manual covers the installation and operation of a number of different kit configurations. Instructions relating to devices not included in your kit should be ignored.

This manual should be retained in a safe place for future reference.

> **IMPORTANT:** All devices, with the exception of the External Siren are suitable for mounting in dry interior locations only.

DECLARATION

Novar ED&S hereby declares that these wirefree alarm systems are in compliance with the essential requirements and other relevant provisions of the Radio and Telecommunications Terminal Equipment (R&TTE) directive, 1999/5/EC.

Tools and Equipment Required:	
No.0 Philips Screwdriver	3mm Drill Bit
No.1 Philips Screwdriver	Drill
No.2 Philips Screwdriver	Small Spirit Level
5 & 6mm Masonry Drill Bits	Bradawl

DEVICE RANGE

The quoted range of the system devices (see component specification on rear cover) is measured in ideal conditions. Any solid object (e.g. walls, ceilings, PVC doors etc.) placed between the transmitter and Siren will reduce the transmission range of the devices.

The amount by which the range will be reduced is dependant upon the nature of the barrier. e.g.

Wall Type	Range Reduction
Dry-lined partition wall:	10-30%
Single layer brick wall:	20-40%
Double layer brick wall:	30-70%
Metal panel/radiator:	90-100%

Note: The effect on the range of multiple walls is cumulative. e.g. if there are two brick walls in the way, the range will be reduced by up to 40% by each wall.

SYSTEM SECURITY

This system has been designed to both detect intruders and act as a strong deterrent to would-be intruders when installed correctly.

Please remember that given adequate knowledge and time it is possible to overcome any alarm system and we therefore recommend that your alarm system is used in conjunction with good physical protection such as security window and door locks.

All units in the system are encoded to operate together using an 8 bit House Code which is configured by the user/installer to provide the identification code for your installation. The system House Code can be changed at any time by the user.

The system is operated from one or more Remote Control Units and/or Keypads. Care should be taken to ensure that any of your Remote Control Units are not lost and that the Keypad User Access Code and system House Code do not become known to other people, as this will compromise the security of your system. In either event the system House Code and/or User Access Code should be changed as soon as possible.

> **IMPORTANT: All devices in your system must be set to the same House Code which must be changed from the factory supplied setting.**

SAFETY

Always follow the manufacturers advice when using power tools; steps, ladders etc. and wear suitable protective equipment (e.g. safety goggles) when drilling holes etc.

Before drilling holes in walls, check for hidden electricity cables and water pipes, the use of a cable/pipe locater maybe advisable if in doubt. When using ladders, ensure that they are positioned on a firm stable surface at the correct angle and suitably secured before use.

The use of ear defenders is advisable when working in close proximity to the Siren due to the high sound level produced by this device.

CONTENTS

KIT CONTENTS

The Alarm System should contain the following devices.

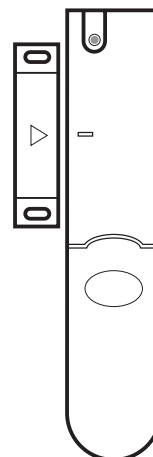| Alarm System	SA1	SA2	SA2PF
Solar Siren	1	1	1
Remote Control	1	1	1
PIR Movement Detectors	2	2	0
Magnetic Contact Detectors	0	2	3
Keypad	0	1	1

Also included:

Installation & Operating Manual

Fixing pack

Batteries
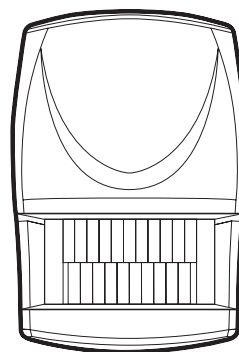
PIR Movement Detector
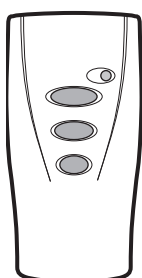
Magnetic Contact Detector

Keypad

Solar Siren
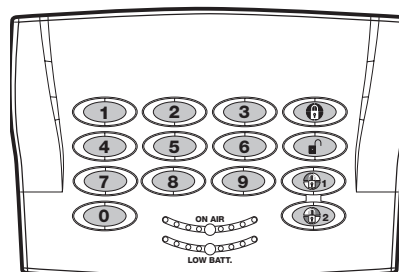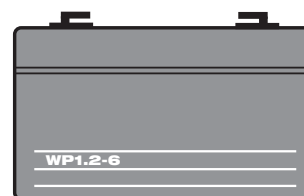
6V/1.2Ahr Sealed lead acid battery
(supplied fitted in Siren)

Remote Control

9V PP3 Alkaline battery
(for Keypad & PIR Detectors)

3V CR2032 Lithium Coin Cell
(for Remote Control and
Magnetic Contact Detectors)

INTRODUCTION AND OVERVIEW

SYSTEM ARMING

The system has an Instant-Arm and Delay-Arm mode.

If the system is armed in Instant-Arm mode then all detectors will immediately become fully armed. Any detector triggered while the system is armed will immediately sound an alarm.

ENTRY/EXIT DELAY

If the system is armed in Delay-Arm mode this will activate the system with a fixed 15 second entry/exit delay period. This allows a 15 second period for the user to exit the property after setting the system with the Remote Control or at the Keypad. Any detector triggered while the system is armed will not cause an alarm condition until after the 15 second entry/exit delay has expired. This allows time for the system to be Disarmed before an alarm sounds when re-entering the property.

Note: To conserve power and maximise battery life the PIR Detector will only detect movement if there has been no movement detected within the previous 2 minutes. Consequently the PIR Detector will not become active until the protected area has been free from movement for more than 2 minutes.

ALARM LOCKOUT

If a detector is triggered while the system is armed, the alarm will sound. After the set alarm duration has ended, the alarm will stop and the system will automatically reset. Subsequent detectors triggered will again sound the alarm. If the alarm is triggered more than 3 times then it will become 'Locked Out' and any further alarm signals will be ignored until the system is re-armed.

TAMPER PROTECTION

All system devices (except the Remote Control) incorporate Tamper protection features to protect against unauthorised attempts to interfere with the device.

Any attempt to remove the battery cover from any device (except a Remote Control) or to remove the Siren from the wall will trigger an alarm (unless the system is in Service Mode), even if the system is Disarmed.

JAMMING DETECTION

In order to detect any attempts to illegally jam the radio channel used by your alarm system, a special jamming detection function is incorporated into the Control Panel and Siren. If this feature is enabled, an alarm will be triggered if the radio channel is jammed continuously for more than 30 seconds or if the system is jammed for more than 3 periods of 10 seconds in a 5 minute period. (The Siren will emit a series of rapid beeps for 5 seconds as a pre-alarm warning 10 seconds before a full alarm occurs).

The jamming detection circuit is designed to permanently scan for jamming signals. However, it is possible that it may detect other local radio interference operating legally or illegally on the same frequency. If it is planned to operate the jamming detection feature we recommend that the system is monitored for false jamming alarms for at least 2 weeks prior to leaving the jamming detection function permanently enabled.

BATTERY MONITORING

All devices powered by non-rechargeable batteries incorporate a battery level monitoring feature which will warn of a low battery status. The batteries on any device indicating a low battery status should be replaced immediately.

SYSTEM HOUSE CODE

In order to prevent any unauthorised attempt to operate or disarm your system, you must configure your system to accept radio signals only from your own system devices. This is done by setting a series of 8 DIP switches in all devices to the same ON/OFF combination (the House Code) selected by the user/installer.
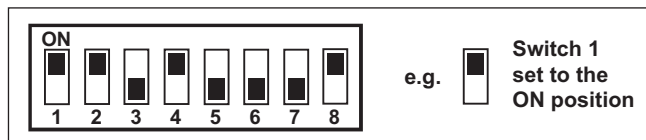
The House Code is set up by moving each of the 8 DIP switches in each device to the same randomly selected ON/OFF sequence. When setting the DIP switches, ensure that each switch 'clicks' fully into position. Use the tip of a ballpoint pen or a small screwdriver to move each switch in turn.

All devices must be configured with the same House Code in order for the system to operate correctly.

IMPORTANT: It is important that the system House Code is always changed to a code other than the factory setting and that all devices are configured with the same House Code in order for the system to operate correctly.
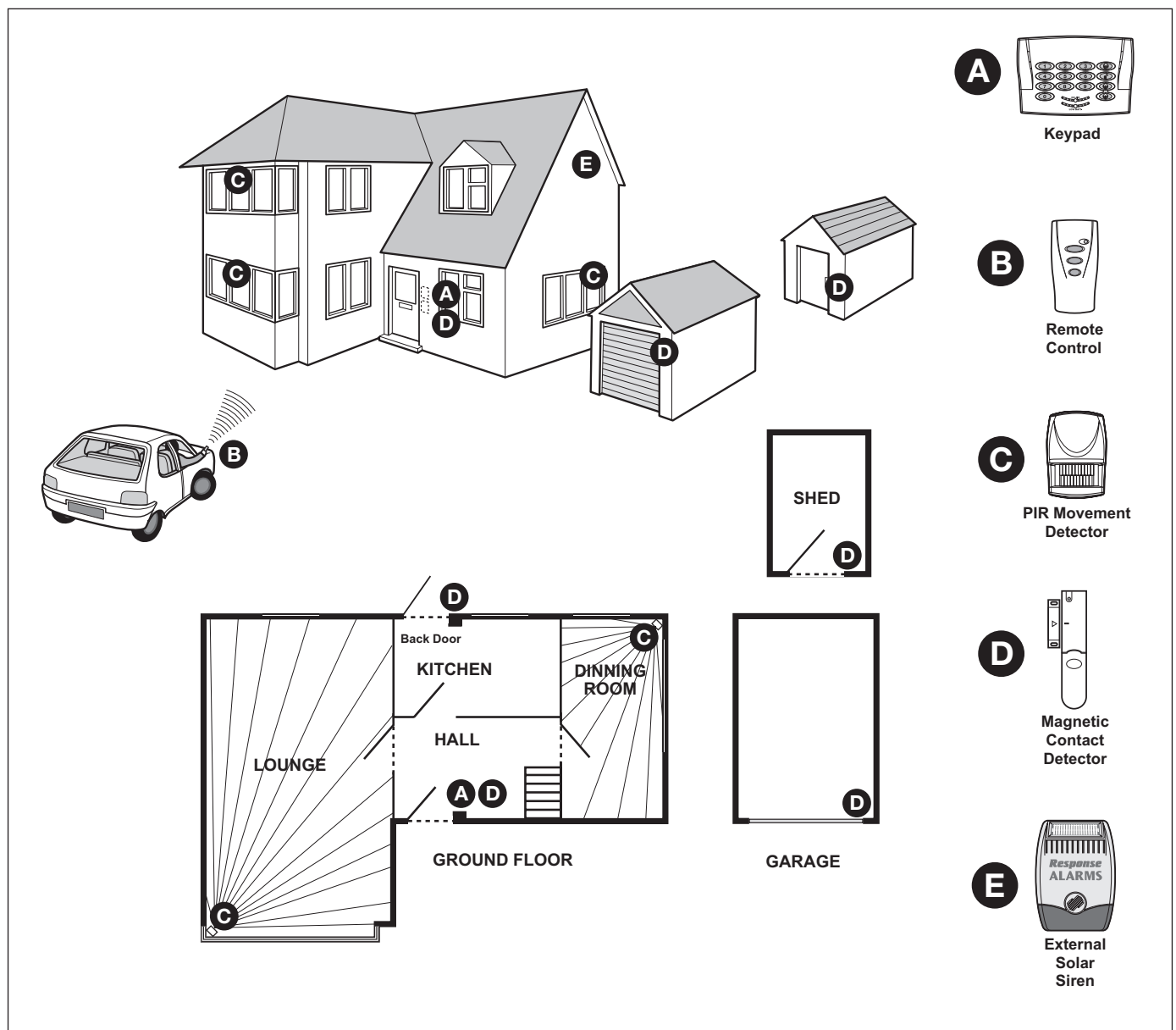
PLANNING AND EXTENDING YOUR ALARM SYSTEM

Before attempting to install your alarm system it is important to study your security requirements and plan your installation.

PIR Movement Detectors are used to protect the main areas of the property, (e.g. lounge, study, hallway and landing). Magnetic Contact Detectors are typically used to protect the main access points to the property, (e.g. front door, back door, patio doors). However, they can also be used to protect other vulnerable doors/windows or access doors to important rooms.

The following example below shows a typical property incorporating the suggested positions for the Siren, Keypad, PIR and Magnetic Contact Detectors for optimum security. Use this as a guide for your installation in conjunction with the detailed positioning requirements for each device provided in the appropriate installation sections in this manual for planning your intruder alarm system.

The alarm system may be extended to provide greater protection and control by fitting additional PIR Movement Detectors, Magnetic Contact Detectors, Remote Controls and Keypads as required. Any number of accessories may be used with your system, provided that they are all coded with the system House Code and are within radio range of the Siren.

A Keypad

B Remote Control

C PIR Movement Detector

D Magnetic Contact Detector

E External Solar Siren

SHED

GROUND FLOOR

Back Door

KITCHEN

DINNING ROOM

HALL

LOUNGE

GARAGE

REMOTE CONTROL UNIT

The Remote Control Unit is used to Arm in either Instant-Arm or Delay-Arm modes and to Disarm the system.
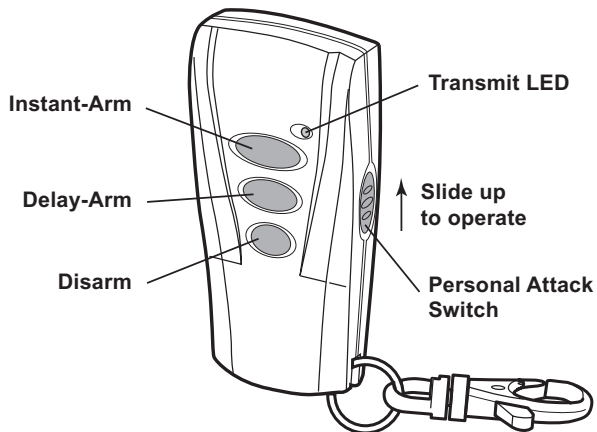
The Remote Control Unit also incorporates a Personal Attack (PA) switch. Activating the PA switch on the side of the Remote Control will immediately trigger an alarm whether the system is Armed or Disarmed (unless the Siren is in Siren Mode). The alarm can be cancelled by pressing the 'DISARM' button on the Remote Control.

Any number of Remote Control Units can be used with your system, providing they are all coded with the same system House Code (DIP switch settings), and are within effective radio range of the Siren.

The Remote Control is powered by a CR2032 type Lithium cell which under normal conditions will have an expected life of approximately 1 year. Under normal battery conditions the Transmit LED on the Remote Control will only illuminate when a button is pressed. However, under low-battery conditions this LED will continue to flash after the button has been released. When this occurs the battery should be replaced as soon as possible.
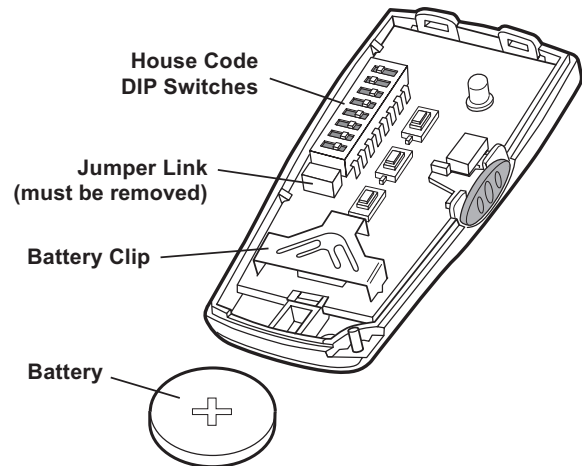
CONFIGURING THE REMOTE CONTROL

1. Remove the rear cover by undoing the small screw on the rear of the Remote Control and keep it safe for later.

2. Select and record (in the Alarm Record section of this manual) a random combination of 'ON' and 'OFF' positions for the DIP switches. This will become the system House Code that enables all devices to communicate with the Siren.

> **IMPORTANT:** The House Code for your system must be changed from the factory setting.

3. Ensure that the jumper link located immediately below the House Code DIP switches is removed for use with this alarm system. The link can be discarded.

4. Insert the battery under the clip ensuring that the **+** terminal faces upwards away from the circuit board.

5. Replace the rear cover and fixing screw. Do not over tighten the screw as this could damage the thread.

Testing the Remote Control:

6. Press the 🔘 button. The Transmit LED should illuminate while the button is pressed and extinguish within 1 second of releasing the button

7. Press the 🔒 and 🔓 buttons in turn to ensure that the Transmit LED illuminates as before.

KEYPAD

The Keypad is used to control the Siren and to Arm and Disarm the system by entering a 4 digit User Access Code. The Keypad can arm the system in either Instant or Delay modes.

The Keypad incorporates a tamper protection facility. Any attempt to open the casing of the Keypad will immediately trigger an alarm even if the system is disarmed, (unless the system is in Service Mode). In addition if a sequence of more than 16 incorrect key presses is entered the Keypad will be disabled for the next 15 seconds, (except for the tamper protection function).

The Keypad also incorporates a Personal Attack (PA) facility which will immediately trigger an alarm when activated, (unless the Siren is in Service Mode).

The Keypad is powered by a PP3 Alkaline battery which under normal conditions will have an expected life of approximately 1 year. When the battery level drops, the "LOW BATT" LED on the front of the Keypad will flash. When this occurs the battery should be replaced as soon as possible.

POSITIONING THE KEYPAD

The Keypad is suitable for mounting in dry interior locations only.

The Keypad should be located within a protected area so that it cannot be reached by an intruder without opening a protected door or passing through an area protected by a PIR Movement Detector.

The Keypad should be mounted in a position close to the main entrance door so that the User Access Code can be entered and the alarm system shut down within the 15 seconds entry time period.

Note: DO NOT fix the Keypad onto or very close to metalwork (e.g. radiators, water pipes, etc) as this could affect the radio range of the device.

INSTALLING AND CONFIGURING THE KEYPAD

Note: If adding a Keypad to an installed system, ensure that the Siren is in Service Mode before commencing installation, (see page 19). Remember to switch the Siren back to Operating Mode after installation is complete, (see page 19).

Fixing Screw   Wall Fixing Plate
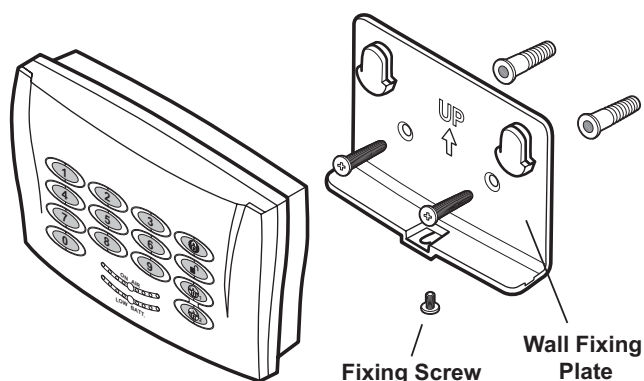
1. Undo and remove the fixing screw from the bottom edge of the Keypad and remove the wall mounting plate.

2. Using the mounting plate as a template, mark the positions of the two fixing holes on the wall. A small spirit level will ensure it is perfectly level.

3. Fix the mounting plate to the wall using the two 18mm No.4 screws and 22mm wall plugs as required, (a 5mm hole will be required for the wall plugs). Do not over-tighten the screws as this may distort or damage the mounting plate.

Note: The wall plugs supplied with the product are not suitable for plasterboard walls, if mounting the Keypad onto plasterboard use appropriate wall plugs.

4. Undo and remove the four fixing screws in the rear of the Keypad and remove the rear cover.

5. Located on the circuit board above the battery clip is a row of 8 DIP switches. These switches set the House Code for the Keypad and must be set to the same ON/OFF combination as the DIP switches in all other system devices.

Jumper Link (must be removed)   House Code DIP Switches

Anti-Tamper Switch
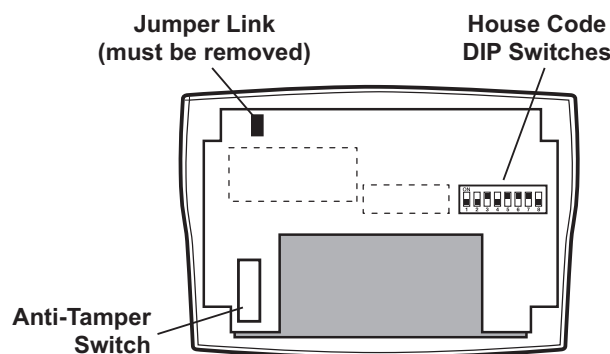
6. Ensure that the jumper link located in the top left corner of the circuit board is removed for use with this alarm system, the link can be discarded.

7. Connect the PP3 alkaline battery to the battery clip.

8. Replace the rear cover and refit fixing screws. Do not over-tighten the fixing screws.

9. Refit and secure the Keypad onto the wall mounting plate. Do not over-tighten the fixing screw.

Note: The Keypad is supplied with a User Access Code of: "1234". For security reasons, this code should be changed to another 4 digit number which only you and other users of the system should know.

CHANGING THE USER ACCESS CODE

When using the Keypad the keys must be pressed firmly and within 3 seconds of each other. If you make a mistake, wait 15 seconds and recommence programming from the beginning of the sequence.

> **IMPORTANT:** When pressing keys, do not leave more than 3 seconds between each press.

To change the User Access Code, press the following keys in sequence:

1. Press (🔒1)

2. Enter the factory set (or current) User Access Code:

(**1**) (**2**) (**3**) (**4**)
Factory set or current User Access Code

3. Press (🔒1) - the 'on-air' LED will flash twice.

4. Enter a new User Access Code of your choice:

(**?**) (**?**) (**?**) (**?**)
New User Access Code

5. Press (🔒1) - the 'on-air' LED will flash 3 times to confirm the setting has been accepted. If the LED does not flash, wait 15 seconds and try steps 1 – 5 again.

PASSIVE INFRA RED (PIR) MOVEMENT DETECTORS

Note: PIR Detectors can be used with the SA2PF kit, but only in areas where pets do not have access.

PIR Detectors detect movement in a protected area by detecting changes in infra-red radiation levels caused for example by a person moving within or across the PIR's detection pattern. If movement is detected an alarm signal will sound the alarm (if the system is armed). PIR Detectors will also detect animals, so ensure that pets are not permitted access to areas fitted with PIR Movement Detectors when the system is armed.

PIR Detectors incorporate a tamper protection feature to protect against attempts to interfere with the device. If the battery cover is removed an alarm will immediately occur even if the system is Disarmed, (unless the Siren is in Service Mode).

The PIR Detector also incorporates a sensitivity adjustment feature to compensate for situations where the detector may be triggered by environmental changes, (e.g. insects, air temperature, etc).

To conserve power and maximise battery life the PIR Detector will only detect movement if there has been no movement detected within the previous 2 minutes, (this is known as the detectors "sleep period").

The PIR Detector is powered by a PP3 Alkaline battery which under normal conditions will have an expected life of approximately 1 year. When the battery level drops, with the PIR in normal operation mode and the battery cover fitted, the LED behind the detection lens will flash. When this occurs the battery should be replaced as soon as possible. (**Note:** in normal operation with the LED behind the lens will not flash on detection of movement).

Any number of PIR Detectors can be used with your system, providing they are all coded with the same system House Code and are mounted within effective radio range of the Siren.

POSITIONING THE PIR DETECTORS

The recommended position for a PIR Detector is in the corner of a room mounted at a height between 2 and 2.5 metres. At this height, the detector will have a maximum range of up to 12 metres with a field of view of 110°.
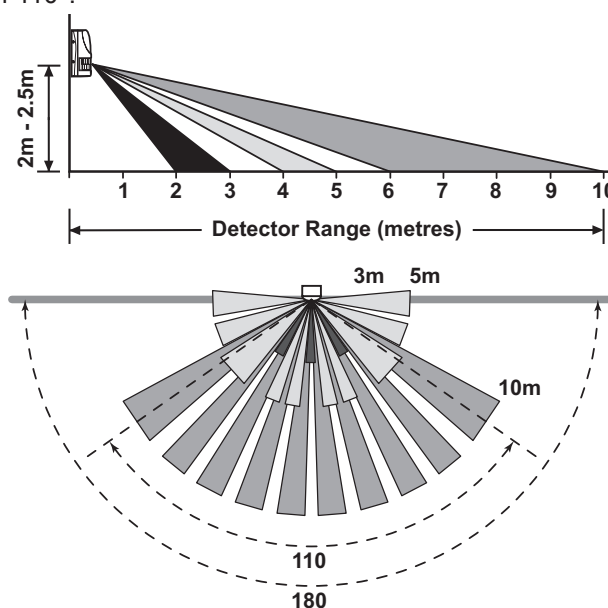
Detection Zone Pattern for Circuit Board in Position 5

The position of the circuit board inside the PIR can be set to 5 different positions to adjust the range of the detection pattern created by the PIR. Setting the circuit board in position 3 will reduce the range to approximately 9 metres, with position 1 providing a range of approximately 6 metres. The recommended position setting for the circuit board is in position 5.

When deciding upon the mounting position for the detector the following points should be considered to ensure trouble free operation:

1. Do not position the detector facing a window or where it is exposed to or facing direct sunlight. PIR Detectors are not suitable for use in conservatories.

2. Do not position the detector where it is exposed to draughts.

3. Do not position the detector directly above a heat source, (e.g. fire, radiator, boiler, etc.).

4. Where possible, mount the detector in the corner of the room so that the logical path of an intruder would cut across the fan detection pattern. PIR Detectors respond more effectively to movement across the device than to movement directly towards it.

5. Do not position the detector in a position where it is subject to excessive vibration.

6. Ensure that the position selected for the PIR Detector is within effective range of the Siren.

7. Do not fix the PIR Detector onto or very close to metalwork (i.e. radiators, water pipes, etc) as this could affect the radio range of the device.

Note: When the system is Armed, pets should not be allowed into an area protected by a PIR Detector as their movement could be detected and trigger an alarm.

INSTALLING AND CONFIGURING THE PIR DETECTORS

Note: If adding a PIR Detector to an installed system, ensure that the Siren is in Service Mode before commencing installation, (see page 19). Remember to switch the Siren back to Operating Mode after installation is complete, (see page 19).

Flat Wall Mounting

Corner Wall Mounting
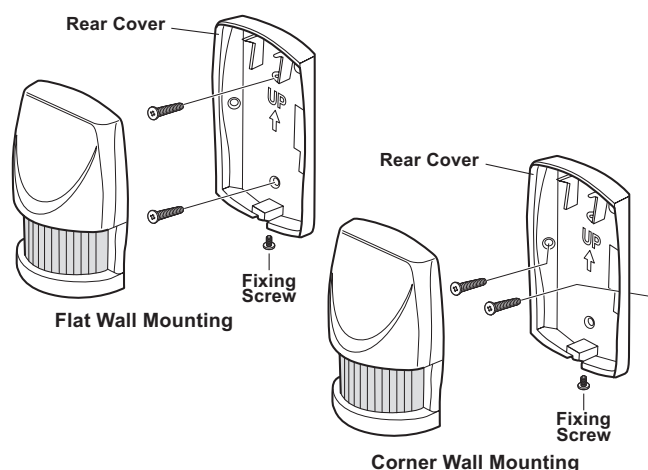
1. Undo and remove the screw from the bottom edge of the PIR Detector (keep the screw safe for later). Carefully pull the bottom edge of the detector away from the rear cover and then slide down to release the top clips.

2. Carefully drill out the required mounting holes in the rear cover using a 3mm drill according to whether the unit is being mounted in a corner or against a flat wall.

**3.** Hold the rear cover in position against the wall and mark the positions of the fixing holes.

4. Fix the rear cover to the wall using the two 18mm No.4 screws and 22mm wall plugs, (a 5mm hole will be required for the wall plugs). Do not over- tighten the screws as this may distort or damage the cover.

Note: The wall plugs supplied with the product are not suitable for plasterboard walls, if mounting the PIR onto plasterboard use appropriate wall plugs.

5. Configure the House Code for the PIR Detector by setting DIP switches 1-8 of SW2 to the same ON/OFF combination as the House Code DIP switches in all other system devices.

6. DIP Switches 1-3 of SW3 must be set as follows for use with this alarm system:

| DIP 1	DIP 2	DIP 3
ON	ON	OFF
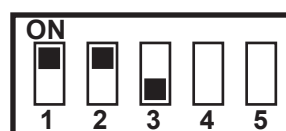
7. DIP switch 4 of SW3 is used to configure the PIR Detector for Walk Test mode, which over-rides the 2 minute sleep period and allows the operation of the detector to be checked during installation.
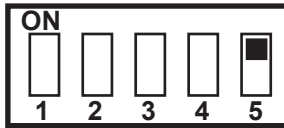
ON = Walk Test mode
OFF = Normal Operation

On initial installation the detector should be configured into Walk-Test mode ready for testing (i.e. with DIP switch 4 of SW3 ON).
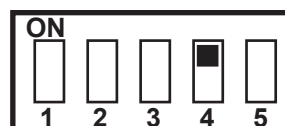
8. To select the required sensitivity, set DIP switch 5 of SW3 as follows:

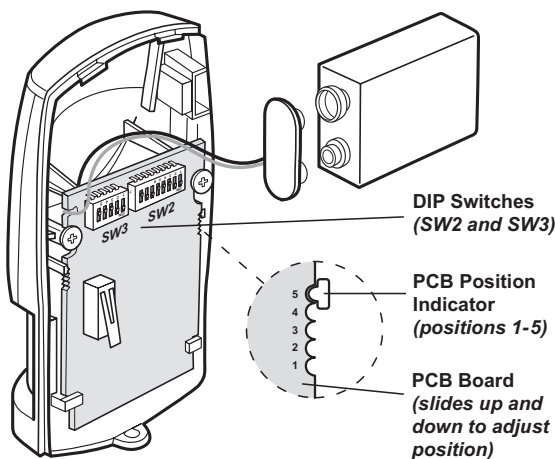ON = HIGH sensitivity
OFF= LOW sensitivity

Note: The recommended setting is HIGH. However, in cases of extreme environmental problems or if unexplained false alarms are experienced, it may be necessary to set the sensitivity to LOW. Setting the device to LOW sensitivity will require a greater amount of movement in order to trigger the device.

9. Connect the PP3 Alkaline battery to the battery clip. The LED indicator behind the lens will rapidly flash for approximately 2-3 minutes until the PIR has stabilised when the LED will stop flashing rapidly.

10. Check that the detector circuit board is located and set in the correct position to give the detection zone pattern required.

To adjust the PCB position simply slide it up or down ensuring that the location legs are aligned with the required position number marked on the board.

DIP Switches
(SW2 and SW3)

PCB Position Indicator
(positions 1-5)

PCB Board
(slides up and down to adjust position)

PCB Position	Range
1	6m
3	9m
5	12m

11. Refit the PIR Detector rear cover by offering the detector up to the rear cover and locate the clips in the top edge into the rear cover. Push the lower edge of the detector into place and refit the fixing screw in the bottom edge of the PIR to secure in position. Do not over-tighten the screw as this may damage the casing.

TESTING THE PIR DETECTOR:

12. Ensure that the LED indicator has stopped flashing rapidly.

13. Walk into and move slowly around the protected area, each time the detector senses movement the LED indicator behind the lens will flash.

14. If necessary remove the detector from the wall and adjust the mounting position of the circuit board within the detector. Repeat step 13 until the detection range is correct for your needs. (In most cases no adjustment will be required).

15. Reconfigure the PIR Detector for Normal Operation with DIP switch 4 of SW3 OFF and refit in position on the wall.
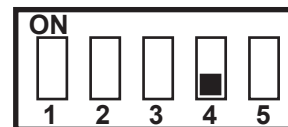
IMPORTANT: In normal operation, the LED indicator behind the detector lens will not flash on movement detection, (unless the battery is low).

Note: When the detector is fully installed i.e. battery cover fitted and in operating mode; in order to conserve power and maximise battery life the PIR Detector will only detect movement if there has been no movement detected within the previous 2 minutes.

MAGNETIC CONTACT DETECTORS

The Magnetic Contact Detector comprises 2 parts; Detector and Magnet. They are designed to be fitted to either doors or windows with the Magnet mounted on the opening part of the door/window and the Detector mounted to the frame.

When the protected door or window is opened and the Magnet is moved away from the Detector an alarm will be triggered if the system is Armed, (unless the Siren is in Service Mode).

The Magnetic Contact Detector has the facility to connect an additional wired Magnetic Contact. This must be of a normally closed contact type with the contact being opened in order to generate an alarm condition.

The Magnetic Contact Detector is powered by two

CR2032 type Lithium cells which under normal conditions will have an expected life of approximately 1 year. Under normal battery conditions the LED on the Detector will not illuminate when the Detector is triggered, (unless in test mode with the battery cover removed). However, under low-battery conditions this LED will be illuminated for approximately 1 second when the Detector is triggered. When this occurs the batteries should be replaced as soon as possible.

Any number of Magnetic Contact Detectors can be used with the system, providing they are all coded with the same system House Code and are mounted within effective radio range of the Siren.

POSITIONING THE MAGNETIC CONTACT DETECTORS

The Magnetic Contact Detector is suitable for mounting in dry interior locations only.

Decide which doors and windows are to be protected by fitting Magnetic Contact Detectors, (usually the front and back doors as a minimum will have Magnetic Contact Detectors fitted). However additional detectors may be fitted where required to other more vulnerable doors or windows, (e.g. garage, patio/conservatory doors etc.).

Ensure that the position selected for the Magnetic Contact Detector is within effective range of the Siren.
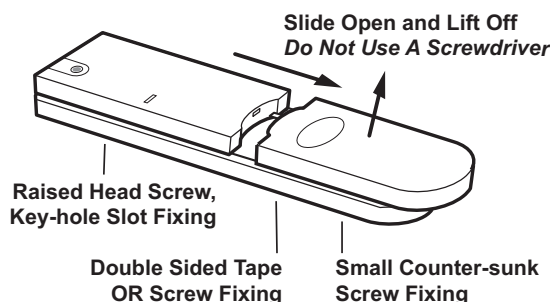
Do not fix the Detector onto or very close to metalwork (i.e. radiators, water pipes, etc.) as this could affect the radio range of the device.

On PVC Door/Window frames, it may be necessary to space the Detector and Magnet away from the metal surface using a plastic or wooden spacer to achieve the necessary radio range.

## INSTALLING AND CONFIGURING THE MAGNETIC CONTACT DETECTORS

Note: If adding a Magnetic Contact Detector to an installed system, ensure that the Siren is in Service Mode before commencing installation, (see page 19). Remember to switch the Siren back to Operating Mode after installation is complete, (see page 19).

1. Remove the battery cover by sliding and lifting it off. DO NOT use a screwdriver to lever it off.

Slide Open and Lift Off
Do Not Use A Screwdriver

Raised Head Screw, Key-hole Slot Fixing

Double Sided Tape OR Screw Fixing

Small Counter-sunk Screw Fixing

2. The Detector and Magnet should be mounted together along the opening edge of the door/window opposite the hinges. Ensure that the parallel gap between the Detector and Magnet is less than 10mm and that the arrow on the Magnet is aligned with the mark on the Detector.

The Detector should be mounted on the fixed part of the frame and the Magnet on the opening part.

Alternative Mountings
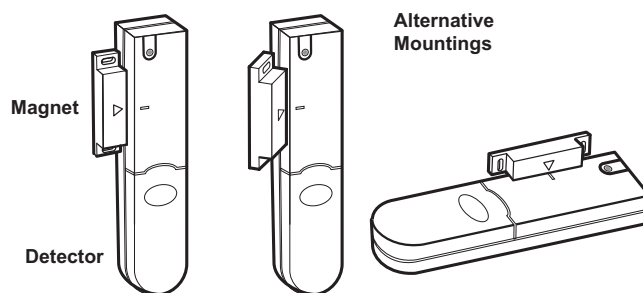
Magnet

Detector

The Detector and Magnet should be mounted using the double sided adhesive pads or screws provided.

Note: If mounting the device using the adhesive pads ensure that the mounting surfaces are clean and dry before mounting.

3. If fixing the Detector with screws first remove the battery holder by carefully tilting up the end and pulling away from the circuit board.

The top of the Detector is secured by hanging the keyhole slot over the head of the 10mm pan head screw. The bottom of the Detector is secured using the 12mm counter-sunk head screw fitted within the battery compartment. Carefully drill out the centre of the fixing screw hole in the battery compartment using a 3mm drill. Fit the Magnet using the two 15mm fixing screws. Do not over tighten the screws as this may distort or damage the casing.

4. If an additional wired Magnetic Contact is required, this should be wired to the terminal block provided in the battery compartment. The wired contact should be connected using a maximum length of 1.5 metres of any of the following:
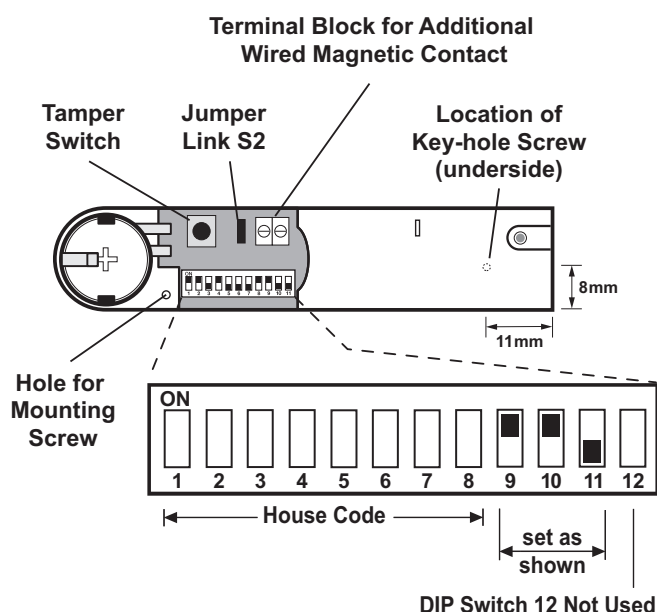
- 6 core alarm cable

- 2 core bell wire (6 x 0.2mm minimum)

- 2 core 24AWG wire

A cable entry cut-out is provided beside the terminal block in the battery cover.

If an additional wired contact is connected to the detector then jumper Link S2 on the Circuit board must be removed.

> **IMPORTANT:** If an additional wired contact is not connected, then the Jumper Link S2 must be fitted for the Detector to operate correctly.

5. Configure the House Code for the Magnetic Contact Detector by setting DIP switches 1-8 to the same ON/OFF combination as the House Code DIP switches in all other system devices.


Terminal Block for Additional Wired Magnetic Contact

Tamper Switch

Jumper Link S2

Location of Key-hole Screw (underside)

8mm

11mm

Hole for Mounting Screw

ON

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

|←— **House Code** —→|

set as shown

DIP Switch 12 Not Used

6. DIP Switches 9-11 must be set as follows for use with this alarm system:

DIP 9	DIP 10	DIP 11
ON	ON	OFF

ON

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
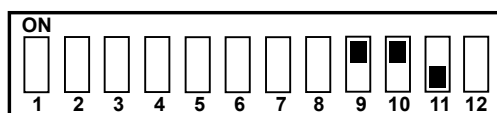
7. Slide the two batteries supplied into the battery holder, ensuring that the **+** side is uppermost on each battery as it is installed.

Battery Connector

Tilt and Remove Battery Holder and Insert Two Batteries
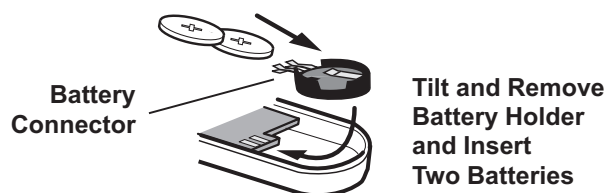
8. If necessary, refit the battery holder into the Detector ensuring that the spring clip connectors slide onto either side of the circuit board.

9. Refit the battery cover.

Testing the Magnetic Contact Detector:

10. Remove battery cover to activate the tamper switch.

As the button is released the LED indicator will illuminate for approximately 1 second to show that the tamper switch has been triggered and a signal is being transmitted.

11. Open the door/window to remove the Magnet from the Detector.

As the Magnet is moved away from the Detector the LED indicator will illuminate for approximately 1 second to show that the Detector has been triggered and a signal is being transmitted.

Note: It does not matter if the LED indicator illuminates as the magnet is brought towards the detector.

12. Refit the battery cover.

EXTERNAL SOLAR SIREN

The Siren is encapsulated within a tough polycarbonate housing that also provides full protection against adverse weather conditions.

An LED indicator unit is built into the Siren to act as a visible deterrent and indication that the system is active. The LEDs will slowly and alternately flash whether the system is Armed or Disarmed. When the alarm triggers the LEDs will flash rapidly together.

An integral tamper switch provides additional security protection to the Siren and will immediately trigger an alarm should any unauthorised attempt be made to interfere with and remove the siren cover, (unless the Siren is in Service Mode).

The Siren is powered by a rechargeable sealed lead acid battery. A solar panel mounted on the top of the housing charges the battery during daylight hours. During darkness, only a small amount of energy is required to operate the Siren unit. A 9V Alkaline PP3 battery is supplied to boost the initial power to the unit when the system is first activated until the solar panel charges the main battery. (The PP3 battery is only designed to last for a short period until the main rechargeable battery has obtained sufficient charge).

The Siren unit incorporates the installation's Jamming Detection system which will (if activated) generate an alarm if any attempt is made to continuously jam the radio channel used for the system.

POSITIONING THE SIREN

The Siren should be located as high as possible in a prominent position on an external wall so that it can be easily seen and heard. The Siren should be mounted on a sound flat surface so that the rear tamper switch is not activated when mounted.

> **IMPORTANT: Ensure that the tamper switch does not fall into the recess between brick courses as this could prevent the switch from closing and give a permanent tamper signal.**

Shadows cast by neighbouring walls, trees and roof overhangs should be avoided. If the Siren is to be mounted below the eaves or soffits, it should be positioned a distance of at least twice the width of the eaves overhang below the eaves. Remember that in winter the sun is lower in the sky and you should avoid winter shadows where possible.

In order to provide the maximum amount of daylight to the solar panel, the Siren should ideally be mounted on a south facing wall. However, an easterly or westerly position will suffice.

Mounting the device on a north facing wall should be avoided as this could mean that during the short dark days of winter months the solar panel may not receive sufficient daylight in order to maintain the battery charge at acceptable levels.
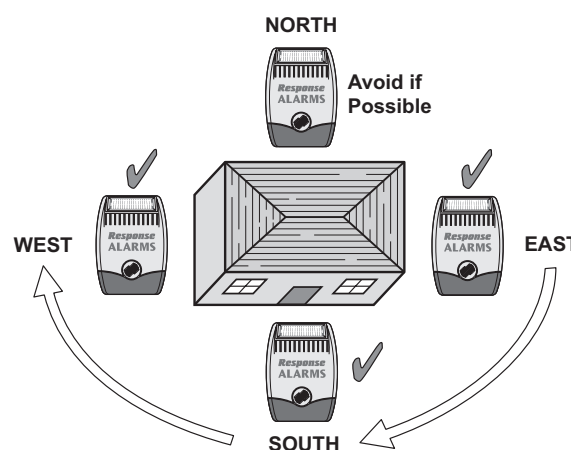
The Siren contains a sophisticated radio receiver. However, reception of radio signals can be affected by the presence of metallic objects within the vicinity of the Siren. It is therefore important to mount the Siren a minimum distance of 1 metre away from any external or internal metalwork, (i.e. drainpipes, gutters, radiators, mirrors etc.). Be especially aware of radiators mounted on the inside wall behind possible locations for the Siren.

Ensure that the position selected for the Siren is within effective range of the Keypad and all detectors.
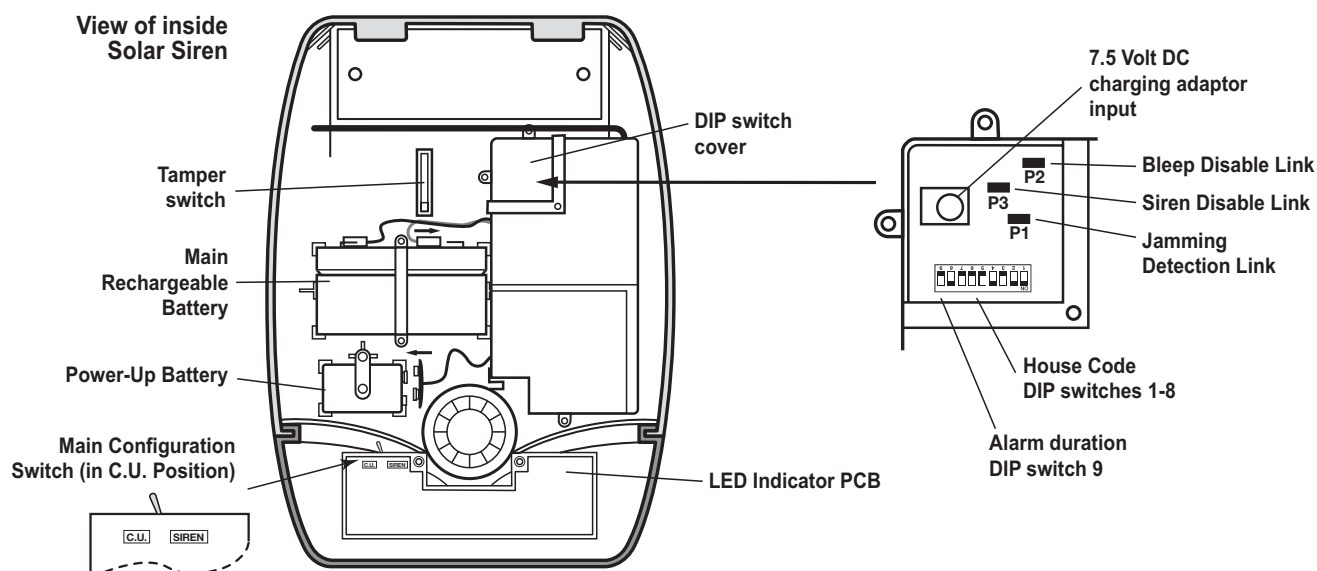
INSTALLING AND CONFIGURING THE SIREN

1. Remove the fixing screw from the bottom edge of the Siren housing and carefully hinge off the front cover. Hold the mounting plate in position and mark the positions of the 4 mounting holes. A spirit level placed on the casing will help ensure you get the unit perfectly level.

2. Drill four 6mm holes and fit the 26mm wall plugs.

3. Fit the two 30mm fixing screws in the top holes leaving approximately 10mm of the screw protruding.

4. Fit the top keyhole slots of the mounting plate over the screw heads. Remove the mounting plate and adjust the screws until they form a neat fit with the mounting plate with minimal movement.

5. Secure the mounting plate in position using the two 25mm fixing screws in the bottom fixing holes.

6. Ensure that the Siren's main configuration switch on the LED Indicator board is set to "C.U." for use with this alarm system.

**Main Configuration
Switch (in C.U. Position)**
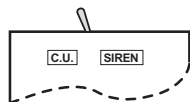
7. Undo the three screws holding the DIP Switch Cover in place and remove the cover (see main diagram opposite).

8. Under the cover you will find a series of 9 DIP switches.

Note: When the Siren is viewed as shown above (Solar panel at top) the DIP switches are 'upside down'.

9. DIP switches 1-8 are used to set the House Code for the Siren and must be set to the same ON/OFF combination as all other system devices.

Alarm Duration DIP Switch 9
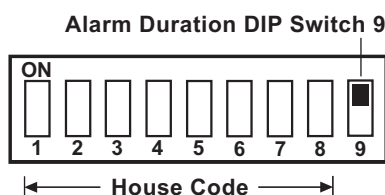
10. If required, the maximum length of time that the Siren will sound for when activated under an alarm condition may be extended to 3 minutes using DIP switch 9 as follows:

> ON =   3 minutes
> OFF = 1 minute

11. The Siren will acknowledge Arm and Disarm signals from the Remote Control and Keypad by beeping. It is possible to disable these acknowledgement beeps if required by removing the jumper link P2 on the circuit board.

> P2 fitted =   Beep enabled
> P2 removed =   Beep disabled

12. If for any reason you need to disable the Siren, remove jumper link P3 on the Circuit board. This will prevent the Siren from sounding during an alarm condition. However, the Siren will still beep to acknowledge signals from the Remote Control and Keypad, (provided the beep feature is not disabled).

> **IMPORTANT:** The Jumper Link (P3) is small so will need to be stored in a safe place until you need to reinstate the Siren alarm.

> P3 fitted =   Siren enabled
> P3 removed =   Siren disabled

13. To enable the Jamming Detect feature in the Siren fit the jumper link taped to the cover of the Siren control unit across link pins P1 on the circuit board.

> P1 fitted =   Jamming Detection enabled
> P1 removed =   Jamming Detection disabled

14. Refit the DIP switch cover and replace the 3 cover fixing screws. Do not over tighten the screws as this could damage the thread.

POWERING UP THE SIREN

1. Connect the 9V PP3 power-up battery to the battery clip.

Connect the rechargeable battery to the charging leads. Connect the Red lead to the Red (**+**) terminal and the Black lead to the Black (**-**) terminal. Both indicator LEDs will flash together in a single long flash to indicate that the unit is operational.

2. Press the tamper switch, both indicator LEDs will flash together several times. The LED's will then continue to flash alternately every 10 seconds thereafter to indicate that the Siren is functioning.

3. Hinge the front cover locating tabs over the top edge of the back plate and carefully push the base of the Siren cover into place. Secure the Siren cover in place by refitting the fixing screw in the bottom edge of the cover. Do not over tighten the screw as this could damage the thread.

> **IMPORTANT:** Ensure that the rear tamper switch is closed when you fit the Siren cover to the back-plate (i.e. listen for the switch to click). If the switch does not close it will prevent the Siren from operating correctly. If necessary, remove the Siren cover again and adjust the screw on the back-plate tamper plunger to ensure the switch closes when the Siren is secured in position – pressed fully against the wall.

4. If fitted, remove the protective film covering the Solar Panel.

> **IMPORTANT:** The Siren must now be left in position for at least 24 hours to fully charge the Main Battery before testing or operating the alarm.

Note: The Siren is automatically in Service Mode and must be switched into Operating Mode before the system can be operated or fully tested.

Switch the Siren into Operating Mode using the Remote Control or Keypad as follows:

Remote Control:

Press and hold the 🔘 button for 6 seconds.

Keypad:

Enter the User Access Code, **then press and hold the Arm button for 6 seconds:**

User Access Code

After 6 seconds the Siren will produce a single long beep to indicate that it has switched into Operating Mode in a Disarmed state. The Arm button should be released during or immediately after the long beep, otherwise the system will Arm.

TESTING THE SYSTEM

The system should be tested at regular intervals (at least every 3 months), to ensure that it is operating correctly.

1. Before commencing testing please ensure the following:

- The Siren is in Operating Mode and Disarmed.

- There is no movement or people/pets in any PIR protected area.

- All doors/windows protected by Magnetic Contact Detectors are closed.

- All battery covers and housings are correctly fitted.

If your system includes a Remote Control:

2. Press 🔘 on the Remote Control

The Siren will beep once.

3. Activate the PA switch on the Remote Control by sliding it forward.

The alarm will sound.
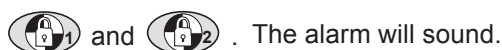
4. Stop the alarm by pressing 🔓 on the Remote Control.

The Siren will stop and acknowledge the signal by beeping twice, (unless Beep Disable has been selected).

If your system includes a Keypad:

5. Arm the system at the Keypad by entering your User Access Code followed by the 'INSTANT-ARM' button.

User Access Code

6. Press and hold both 'DELAY-ARM' buttons on the Keypad for approximately 3 seconds.

🔘₁ and 🔘₂ . The alarm will sound.

7. Stop the alarm and Disarm the system by entering your User Access Code followed by the DISARM button on the Keypad.

User Access Code

If your system includes PIR Detectors:

8. Arm the system in Instant-Arm mode by pressing ⊕ on the Remote Control.

The Siren will acknowledge the signal by beeping once, (unless Beep Disable has been selected).

9. Ensure that the area protected by the PIR has been free from movement for at least 2 minutes and then walk into the area to trigger the detector

Note: To conserve power the PIR will only detect movement if there has been no movement detected within the previous 2 minutes.

10. Stop the alarm and Disarm the system by pressing 🔓 on the Remote Control.

The Siren will stop and acknowledge the signal by beeping twice, (unless Beep Disable has been selected).

11. Continue to test all PIR Detectors in turn as described above, (steps 8 - 10).

If your system includes Magnetic Contact Detectors:

12. Arm the system in Instant-Arm mode by pressing the ⊕ button on the Remote Control.

13. Open a door/window protected by a Magnetic Contact Detector and ensure that the alarm sounds.

14. Disarm the system and stop the Siren by pressing the 🔓 button on the Remote Control.

15. Test each Magnetic Contact Detector in turn as described above, (steps 12 - 14).

OPERATING INSTRUCTIONS

When leaving the premises, the system must be Armed. However, before doing so, check that all windows are closed and locked, all protected doors are closed and PIR Detectors are not obstructed. Ensure that pets are restricted to areas not protected by PIR Detectors.

The system has 2 armed modes, Instant-Arm and Delay-Arm.

Instant-Arm mode will immediately Arm the system. Once the system is Armed, activating any detector, (i.e. opening a door/windows protected by a Magnetic Contact Detector or moving into a PIR protected area), will immediately trigger an Alarm. On returning to and entering the property the system must be Disarmed before opening any protected door or entering an area protected by a PIR Detector otherwise an Alarm will occur. For this reason when using Instant-Arm mode, the system should be Armed and Disarmed from outside the property using the Remote Control.

Delay-Arm mode will Arm the system with a 15 second entry/exit delay. On arming the system in Delay-Mode the siren will beep once and then again after the 15 second delay has expired. This allows time for you to leave the property before the system becomes fully Armed. On returning to and entering the property by opening a protected door or moving through a PIR protected area the system will be triggered and the Siren will emit a single long beep. However, an Alarm will not sound until the 15 second delay has expired. The system must be Disarmed using either the Remote Control or Keypad during the 15 second delay to prevent the Alarm from sounding.

If an Alarm occurs the Siren will sound continuously until the set alarm duration time expires. The alarm will then stop and the system will automatically re-arm itself. This process can be repeated up to 3 times after which time the "Alarm Lockout" feature will operate and prevent the system from re-arming.

Notes: - To conserve power and maximise battery life the PIR Detector will only detect movement if there has been no movement detected within the previous 2 minutes.

- The system can only be armed if the Siren is in Operating Mode, (see page 19).

ARMING THE SYSTEM IN INSTANT-ARM MODE

The system can be Armed in Instant mode by using either the Remote Control or the Keypad as follows:

Remote Control:

Press the 'INSTANT-ARM' button,

The Siren will acknowledge the signal by beeping once.

Keypad:

Enter your User Access Code followed by the 'INSTANT-ARM' button

User Access Code

The Siren will acknowledge the signal by beeping once.

ARMING THE SYSTEM IN DELAY-ARM MODE

The system can be Armed in Delay mode using either the Remote Control or the Keypad as follows:

Remote Control:
Press the 'DELAY-ARM' button,

The Siren will acknowledge the signal by beeping once and then again after the 15 second entry/exit period has expired. The system will not be fully Armed and active until after the second beep.

Keypad:

Enter your User Access Code followed by either 'DELAY-ARM' button.

User Access Code

The Siren will acknowledge the signal by beeping once and then again after the 15 second entry/exit period has expired. The system will not be fully Armed and active until after the second beep.

DISARMING THE SYSTEM

The system can be Disarmed using either the Remote Control or the Keypad as follows:

Remote Control:

Press the 'DISARM' button,

The Siren will acknowledge the signal by beeping twice.

Keypad:

Enter your User Access Code followed by the 'DISARM' button.

User Access Code

The Siren will acknowledge the signal by beeping twice.

> **IMPORTANT:** If, when the system is Disarmed, the Siren emits a series of 10 rapid beeps, this indicates that an Alarm has been triggered whilst the system was Armed. Check the security of the property before entering.

PERSONAL ATTACK (PA) ALARM

An Alarm can be immediately triggered by the user at any time (whether the system is Armed or Disarmed) in the event of threat or danger by activating the Personal Attack (PA) facility using either the Remote Control or the Keypad as follows:

Remote Control:

Slide the Personal Attack switch upwards.

Keypad:

Press and hold both the and buttons together for 2 seconds.

The Alarm will sound until the set alarm duration time expires or the system is Disarmed from the Remote Control or Keypad.

DEVICE TAMPER

If the battery cover of any device (except a Remote Control) is removed or if the Siren or Keypad are removed from the wall then an Alarm will immediately occur (unless the Siren is in Service Mode), even if the system is Disarmed.

The Alarm will sound until the set alarm duration time expires or the system is Disarmed from the Remote Control or Keypad.

SIREN SERVICE MODE

In order to remove the Siren from the wall to change the batteries, it is necessary to place the Siren into Service Mode to prevent the Tamper protection switch on the Siren operating and triggering an alarm.

The Siren can be switched into Service Mode using either the Remote Control or the Keypad as follows:

Remote Control:

Press and hold the (🔓) button for 6 seconds.

Keypad:

Enter your User Access Code, **then press and hold the Disarm button for 6 seconds.**

(?) (?) (?) (?) , (🔓)
User Access Code

The Siren will produce 2 short beeps as the Disarm button is pressed followed by a single long beep 6 seconds later to indicate that it has switched into Service Mode.

SIREN OPERATING MODE

When you have completed any alterations to the system remember to switch the Siren into Operating Mode.

The Siren can be switched into Operating Mode using either the Remote Control or the Keypad as follows:

Remote Control:

Press and hold the (🔒) button for 6 seconds.

Keypad:

Enter the User Access Code, **then press and hold the Arm button for 6 seconds:**

(?) (?) (?) (?) , (🔒)
User Access Code

After 6 seconds the Siren will produce a single long beep to indicate that it has switched into Operating Mode in a Disarmed state. The Arm button should be released during or immediately after the long beep, otherwise the system will Arm.

BATTERY MONITORING

All system devices continuously monitor their battery condition. When a low battery indicator is activated the device will continue to operate normally for up to 2 weeks (depending upon system use). However, the battery for that device should be replaced as soon as possible.

Before replacing the battery in any device switch the system into Service Mode as previously described. When the batteries have been replaced, the system should be returned to Operating Mode.

The low battery indication for each system device is as follows:

Remote Control

When the Remote Control is operated under low battery conditions the transmit LED will continue to flash after the button has been released.

Under normal battery conditions the LED will extinguish within 2 seconds of the button being released.

Keypad

When the battery is low the 'low-batt' LED on the keypad will be illuminated.

Note: The Keypad will retain your User Access Code setting for approximately 15 seconds whilst the battery is removed and replaced. If the battery is left disconnected for a longer period, or has been allowed to run completely flat your User Access Code will revert to the factory set code of "1234" when the new battery is connected. The User Access Code will then need reprogramming as detailed on page 9.

PIR Movement Detectors

Under low battery conditions the LED behind the detector lens will flash when movement is detected to indicate that the battery needs to be replaced.

Under normal battery conditions the LED does not illuminate unless the PIR Detector is in Walk Test mode.

Magnetic Contact Detectors

When the Detector is activated, under low-battery conditions the Transmit LED will be illuminated for approximately 1 second as the door/window is opened.

Under normal battery conditions the LED does not illuminate as the Detector is operated, (unless the Detector is in Test Mode with the battery cover removed).

MAINTENANCE

Your alarm system requires very little maintenance. However, a few simple tasks will ensure its continued reliability and operation.

> **IMPORTANT:** If, for any reason you have to completely power-down the system (e.g. to move the system to new premises), first put the system into Service Mode before removing the Siren cover and disconnecting the main rechargeable and initial power-up batteries. Ensure that the solar panel is covered with a lightproof material to prevent it being energised, otherwise the solar panel may still power the siren.

SOLAR SIREN

1. It is recommended that the Solar Panel on the top of the siren housing should be cleaned at least twice a year, preferably in the Spring and Autumn, using a soft damp cloth. Do not use abrasive, solvent based or aerosol cleaners. Do not attempt to clean inside the unit or allow water to enter the unit.

This will ensure that the Solar Panel does not become affected by the build up of excessive dirt and receives all the available light.

2. The Siren should not be left for long periods with the batteries connected, unless the unit is able to receive sufficient light to maintain the battery charge. Failure to maintain charge to the unit will result in the rechargeable battery running unacceptably low. Should this occur, the unit must be recharged from a 7.5Vdc/100mA supply (e.g. from a mains adaptor power supply). When re-powering the Siren fit a new 9V PP3 leak proof Alkaline power-up battery to ensure that the Siren receives sufficient power until the solar panel can recharge the main battery.

3. The main rechargeable battery has a typical life of 3 - 4 years and needs no maintenance during this period, provided the battery is kept charged. The battery will be damaged if it is stored in a discharged state for long periods.

> **IMPORTANT:** Before removing the Siren from the wall ensure that the Siren is first switched into Service Mode to prevent the Tamper switch operating and triggering an alarm, (see page 19). The Siren must be switched back into Operating Mode, otherwise the system cannot be Armed.

DETECTORS, REMOTE CONTROL AND KEYPAD

The detectors require very little maintenance. The batteries should be replaced once a year or when a low battery status is indicated.

BATTERIES

Note: Before removing the battery cover on any device to replace the battery ensure that the Siren is switched into Service Mode to avoid triggering an alarm.

The specifications for replacement batteries are as follows:

Remote Control: 1 x 3V CR2032 Lithium Cell (or equivalent)
Magnetic Contact Detector: 2 x 3V CR2032 Lithium Cells (or equivalent)
PIR Movement Detector: 1 x 9V PP3 Alkaline Battery
Keypad: 1 x 9V PP3 Alkaline Battery

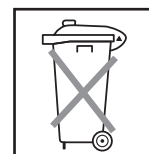**Note:** Rechargeable batteries should NOT be fitted.

DISPOSAL

At the end of their useful life the packaging, product and batteries should be disposed of via a suitable Recycling Centre.

Do not dispose of with your normal household waste.

DO NOT BURN.

The Rechargeable Batteries contain Sulphuric Acid **– DO NOT ATTEMPT TO OPEN THE CASING.**

ALARM RECORD

You may make a note of your User Access Code and System House Code below.

User Access Code

System House Code

ON

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Use the above diagram to record your House Code e.g.

= ON   = 1   = OFF = 0

This information is confidential and should be kept in a safe location.

TROUBLESHOOTING

Symptom / Recommendation

Siren immediately sounds when system armed.

1. Siren tamper switch activated - adjust tamper plunger and ensure that switch fully closes when Siren is mounted. If the wall is excessively uneven, the Siren may need relocating to a more suitable position.

Siren sounds when system is disarmed or has not been triggered by an intruder.

1. Detector tamper switch activated - check that the battery covers of all Detectors and Keypads to ensure they are securely and fully fitted.

2. Personal Attack Alarm operated from a Remote Control or Keypad.

3. Jamming Detection circuit operation (see page 15).

4. Detector giving false alarm signals, see below.

Siren not responding to Detector.

1. Detector battery low - Replace battery.

2. Siren in Service Mode - switch to Operating Mode using Remote Control or Keypad.

3. Ensure 'House Code' is correctly set to the same code as all other system devices.

4. Ensure Detector is within effective radio range of Siren and equipment is not mounted close to metal objects.

Siren not responding to Remote Control or Keypad.

1. Remote Control or Keypad battery low – Replace battery.

2. Ensure 'House Code' is correctly set to the same code as all other system devices.

3. Incorrect User Access Code being entered at Keypad.

4. Siren rechargeable battery discharged:

   a. Clean Solar Panel.

   b. Check age of rechargeable battery – replace if at end of useful life.

   c. Fit new initial power-up battery and re-power up siren.

5. System locked - Reset system:

   a. Disconnect Siren rechargeable and initial power-up batteries.

   b. Cover Solar Panel with lightproof material and leave system for 5 minutes.

   c. Reconnect batteries and then remove Solar panel cover and take out of Service Mode.

LED on Remote Control not illuminating, or is dim when unit is operated.

1. Ensure battery is fitted with correct polarity.

2. Ensure battery holder connections are making good contact with the battery.

3. Battery low - replace battery.

Keypad not operating ('On-Air' light does not illuminate).

1. Incorrect User Access Code being entered.

2. Battery missing.

PIR Movement Detector false alarming.

1. Ensure that the detector is not pointing at a source of heat or a moving object.

2. Ensure that the detector is not mounted above a radiator or heater.

3. Ensure that the detector is not facing a window or in direct sunlight.

4. Ensure that the detector is not in a draughty area.

5. Sensitivity set too HIGH – reset to LOW sensitivity, (i.e. DIP 5 of SW3 OFF).

PIR Movement Detector not detecting a person's movement.

1. Ensure the battery clip is securely connected.

2. Ensure 'House Code' is correctly set to the same code as all other system devices.

3. Sensitivity set too LOW – reset to HIGH sensitivity, (i.e. DIP 5 of SW3 ON).

4. Ensure DIP switches 1, 2 and 3 of SW3 are correctly set, (i.e. 1=ON, 2=ON, and 3=OFF).

5. Ensure that detector is mounted the correct way up, (i.e. with detection window at the bottom).

6. Ensure that the detector is mounted at the correct height, (i.e. 2 - 2.5 metres).

7. Allow up to 3 minutes for detector to stabilize and become fully operational. Leave the area for this period.

8. Ensure detector is within effective radio range of the Siren and is not mounted close to metal objects which may interfere with the radio transmission.

PIR Movement Detector LED flashes on detection of movement, (device in Normal Operation mode).

1. Ensure that the detector is configured for normal operation, (i.e. DIP switch 4 of SW3 is OFF).

2. Low battery - Replace battery.

Magnetic Contact Detector not working.

1. Ensure that Magnet is correctly positioned in relation to Detector and that the gap between magnet and detector is less than 10mm.

2. Ensure batteries are fitted with correct polarity.

3. Ensure battery holder connections are making good contact with the batteries and PCB (Circuit board).

4. Ensure 'House Code' is correctly set to the same code as all other system devices.

5. Ensure DIP switches 9, 10 and 11 are correctly set, (i.e. 9=ON, 10=ON, and 11=OFF).

6. If there is no additional wired Magnetic Contact connected ensure jumper link is fitted.

7. If an additional wired Magnetic Contact is connected:

   a. Ensure jumper link is removed.

   b. Check that both contacts are closed.

   c. Check that additional contact is correctly wired.

   Note: If a wired contact is used, both protected doors / windows **must** be closed when the system is armed (otherwise neither door/window will be protected).

8. Ensure detector is within effective radio range of the Siren and is not mounted close to metal objects which may interfere with the radio transmission.

Magnetic Contact Detector false alarming.

1. Ensure that Magnet is correctly positioned in relation to Detector.

2. Ensure that gap between Magnet and Detector is less than 10mm.

3. Tamper switch below battery cover not depressed – check battery cover is fitted correctly and that fixing lugs are not broken.

LED on Magnetic Contact Detector illuminating when door or window is opened.

1. Low battery - replace batteries.

HELPLINE

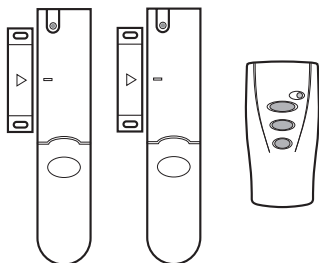**If you have any problems with your alarm, please call the Helpline on:**

01268 563273

(Lines open 9.00am to 5.00pm, Monday to Friday)

EXTENDING YOUR ALARM SYSTEM

The following additional accessories are available to enhance your system and provide further protection and a higher level of security where required.
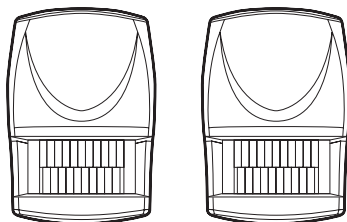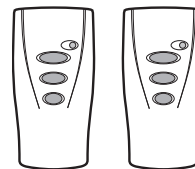
ACCESSORIES

SU1

ACCESSORY SET

2 x Magnetic Contact Detectors and 1 x Remote Control Unit.
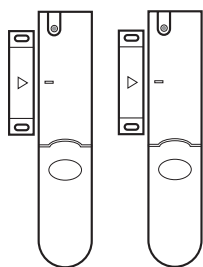

SU2

PIR MOVEMENT DETECTORS

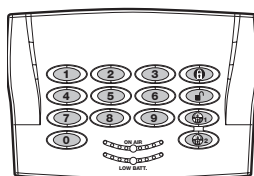2 x PIR Movement Detectors.

SU3

REMOTE CONTROL UNITS

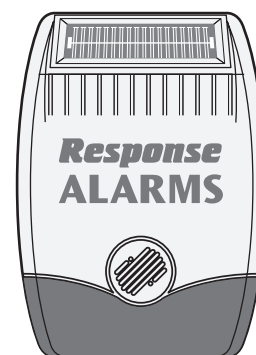2 x Remote Control Units.

SU4

MAGNETIC CONTACT DETECTORS

2 x Magnetic Contact Detectors.

SU5

REMOTE KEYPAD

1 x Remote Keypad.

SU6

EXTERNAL SOLAR SIREN

1 x External Solar Siren.

GUARANTEE

Novar ED&S undertakes to replace or repair at its discretion goods (excluding non rechargeable batteries) should they become defective within 1 year solely as a result of faulty materials and workmanship.

Understandably if the product has not been installed, operated or maintained or maintained in accordance with the instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the guarantee will be invalidated.

The guarantee states Novar ED&S entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This guarantee does not in any way affect the statutory or other rights of a consumer and applies to products installed within the UK and Eire only.

If an item develops a fault, the product must be returned to the point of sale with:

1. Proof of purchase.

2. A full description of the fault.

3. All relevant batteries (disconnected).

Friedland is a trademark of Novar ED&S.

# COMPONENT SPECIFICATION

External Solar Siren
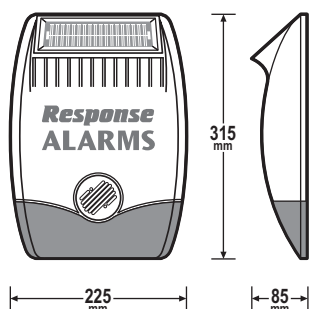
- RF operating frequency: 433MHz
- Sealed lead acid battery 6V/1.2Ahr
- Solar Panel 7.5V – Charge Rate typically 60mA
- Operation time in complete darkness – up to 40 days
- Instant-Arm mode
- Delay-Arm mode – 15 seconds Entry/Exit Delay
- High Power Piezo Siren
- Alarm Duration: 1 or 3 minutes
- Auto reset
- Alarm lockout
- Siren Disable (selectable)
- Dual front and rear anti-tamper protection
- Jamming Detection
- Audible confirmation (selectable)

Remote Control
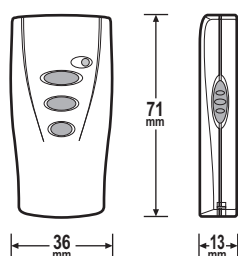
- RF operating frequency: 433MHz
- Range: 50 metres max.
- Personal Attack (PA) switch
- Transmission indicator
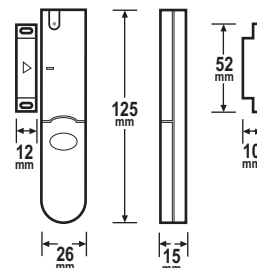- Battery life > 1 year
- Low battery indicator

Keypad
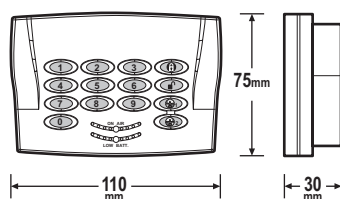
- RF operating frequency: 433MHz
- Range: 50 metres max.
- Changeable 4 digit User Access Code.
- Anti-Tamper protected
- Personal Attack (PA) facility
- Battery Life > 1 year
- Low Battery Indicator

PIR Movement Detector
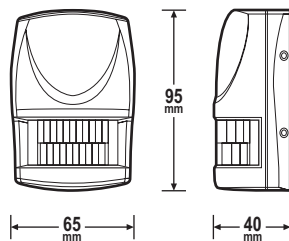
- RF operating frequency: 433MHz
- Range: 75 metres max.
- Detection range: up to 12 metres at 110°
- Walk test facility
- LOW/HIGH Detection Sensitivity
- Anti-Tamper protected
- Corner or surface mount
- Battery Life > 1 year
- Low Battery Indicator

Magnetic Contact Detector(s)

- RF operating frequency: 433MHz
- Range: 75 metres max.
- Test Mode
- Anti-Tamper protection
- Facility to connect additional wired Magnetic Contact
- Battery Life >1 year
- Low Battery Indicator

RESEARCH & DEVELOPMENT

Our R & D Department is constantly developing new products. We practice a policy of continued improvement and reserve the right to change specifications without prior notice.

Novar Electrical Devices and Systems are Quality Assurance Registered to BS EN ISO9001 2000, by Asta

HELPLINE

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01268 563273

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